

How King County's new sewer pipeline will be installed in Southeast Bellevue

King County's contractor will install a new sewer pipeline in Bellevue. King County will upgrade this area of the regional wastewater system to provide additional capacity for the area's growing population. The current 12 inch sewer force main pipe will be replaced with a 24 inch pipe to increase capacity.

Two main construction methods will be used to install the new force main pipe. Open-trench construction will be used for a portion of the installation. To avoid surface impacts in critical areas, **Horizontal Directional Drilling (HDD)** will be used from Sunset Pump Station near Vasa Park to 166th Avenue S.E.

HDD is typically used to install pipelines under busy roadways and environmentally sensitive areas. The contractor uses a machine on the surface to drill an underground pathway for the new pipe, and then to pull the pipe through the path. See below for an overview of how HDD works.

Pilot Bore

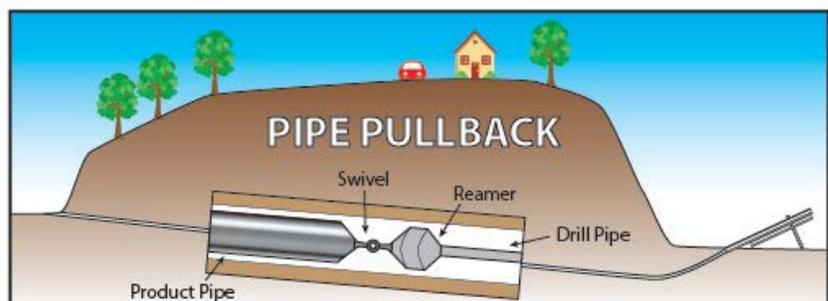
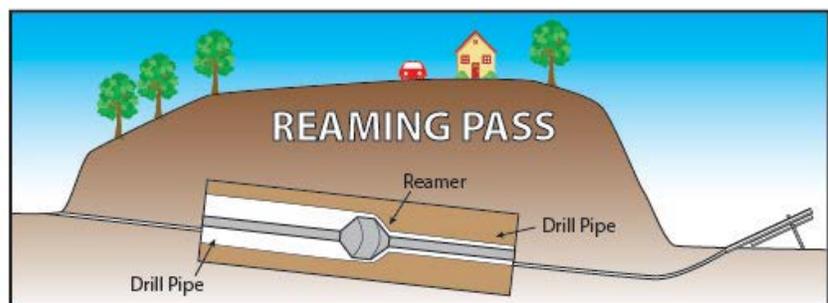
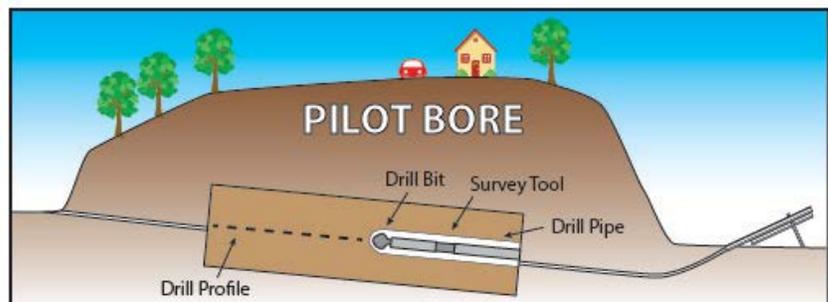
The contractor builds entry and exit points for the drilling operation. Steel pipes called *casings* will be installed where the drill enters and exits. Then the contractor will carry out the pilot bore, establishing the underground path for the new pipeline.

Reaming Pass

The contractor enlarges the hole to the final pipe size using a *reamer*. Mud from drilling in this step is collected and recycled.

Pipe Pullback

Once the bore hole is prepared, the pipeline is pulled through the hole. The contractor will determine the best direction for pipeline pullback.



Horizontal Directional Drilling – Sunset and Heathfield Project

To protect the surface, crews will install steel conductor casings underground prior to drilling the pilot bore.



Specific drilling equipment is chosen depending on soil conditions. During project design, soil conditions are analyzed at the depth where the pipeline will be installed.

While the drilling crew is preparing the bore hole, a crew uses heat to fuse pipe sections together. The growing pipeline is laid out in long strings. On the day of pullback, the strings are fused together and pulled through the borehole.



For more information:

Visit www.kingcounty.gov/sunsetheathfield You can also contact De'Sean Quinn at 206-477-5417 or desean.quinn@kingcounty.gov