

Supplement to Excavation and Backfill for the P41 Pipeline

Excavation shall be conducted per the Enterprise Excavation Procedure. Additional activities to occur during excavation, post excavation, and during backfill are identified within this document and will be followed for the P41 pipeline.

The Survey Crew will establish a reference benchmark and obtain an elevation profile of all exposed pipe. If soil conditions allow, a profile of the pipe in the excavation area will be established prior to any excavation. If rock prevents the above, the excavator may remove soil in order to visually see the top of the pipe. The profile will be conducted prior to removing additional soil beside or below the pipe. Once the profile has been established, excavation may proceed. Once excavation has been completed, a second profile will be taken to ensure minimal pipe movement.

Excavation of girth welds will be kept to a minimum with only as much pipe exposed to complete the examination of the welds. Excavation will be via pot holing, when possible. Pipe on either side of the girth welds will be supported via the earthen plug, native soil or sand bag.

All excavations will be completed by leaving as much of the bench (below and 18" buffer both sides of the pipe) in the ditch as possible. Bench removal will be limited to only enough area to investigate and repair the identified area. All exposed pipe sections will be supported by skids or sandbags to ensure minimal pipe movement at intervals not exceed 10' between unsupported span. Once work has been completed, any skids used to support the pipe will be replaced with sandbag supports and backfilled in place.

Backfill will be completed with the native soil and will be placed in the ditch to the level of the pipe and compacted by the back of the hoe bucket. Once the backfill and compaction has been completed to pipe level, a final profile will be completed to ensure minimal pipe movement. Once verified, backfill and final clean-up may be completed.