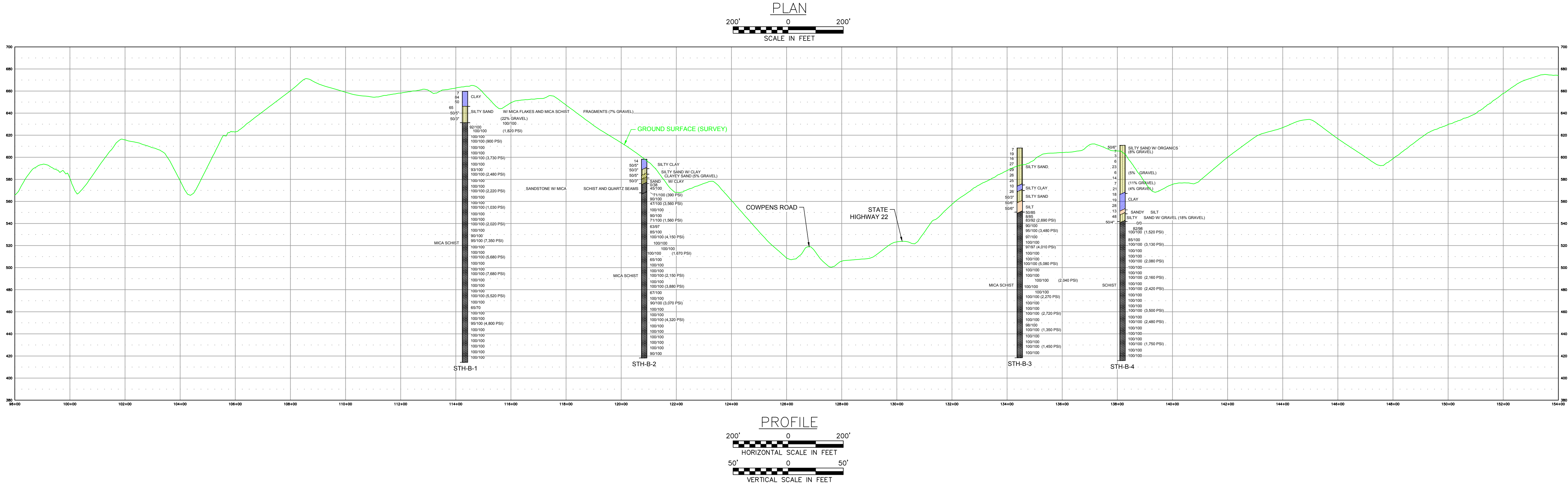
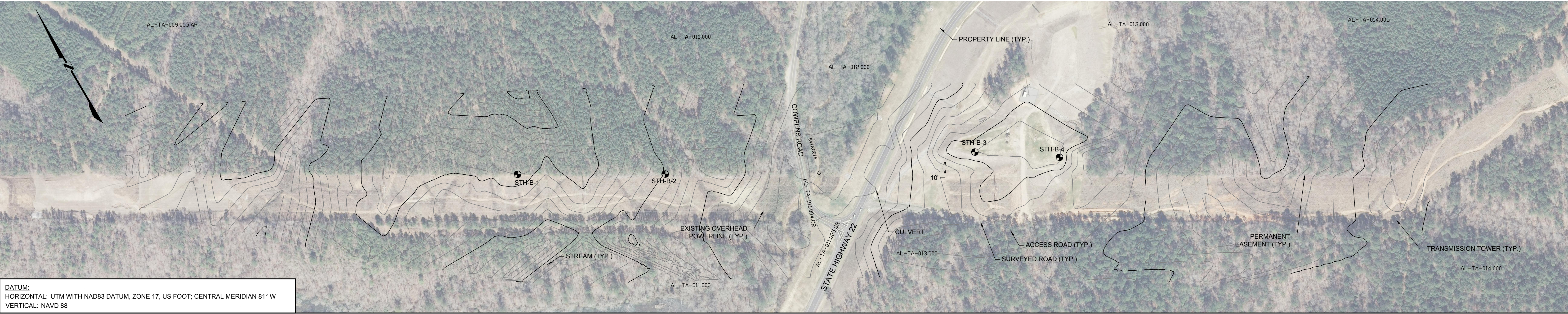




Problem Description:
The ABC company is proposing a Horizontal Directional Drill (HDD) crossing to replace an existing 36 inch diameter steel natural gas pipeline beneath State Highway 22 as part of the FGE Pipeline project located in Colorado, USA. The proposed pipeline corridor and the boring locations with soil profile are shown in the figure above. Assuming the State of Colorado requires 40 feet of minimum depth of cover under highways and railroads, design a HDD profile showing entry and exit workspaces for HDD construction and product pipe string and fabrication workspace for pullback operations.