

Tiebacks are prestressed bars or strands constructed similar to a rock bolt.

They are high capacity, active restraints, anchored in competent rock, and are used in a wide variety of applications, similar to soil nails and rock anchors.

Tiebacks are used frequently for excavation shoring systems to resist the lateral loading and underpinning a foundation prior to excavation. In many soil conditions tiebacks are used in conjunction with sheetpile systems or soldier piles and wood lagging, and are economical systems for temporary support of excavations. The technique is top-down construction sequencing. The construction sequence begins with the installation of soldier piles. A lift of five to seven feet is cut. Wood lagging is installed to maintain the soil between the soldier beams and the tiebacks are installed to support the lateral earth pressures. This sequence is repeated as necessary until subgrade is reached. Continuous support of the cut is provided and disturbance behind the wall is minimized.