

BULLETIN

News from *SubTerra, Inc.*®

MTBM Recovery from Beneath Interstate I-5's Right of Way Seattle, Washington

SubTerra, Inc. was retained by Northwest Boring when their Microtunnel Boring Machine (MTBM) could not be advanced while tunneling beneath I-5 south of Seattle, Washington. The assignment was to help with analyzing construction records and develop an optimum configuration to recover the MTBM and complete the project.

The MTBM was located beneath Interstate I-5's right of way preventing the construction of a recovery shaft.

SubTerra's scope of work therefore involved designing the recovery tunnel.

SubTerra reviewed records available from the MTBM guidance system and a survey of the location of each installed pipe segment and the MTBM components and recommended an alignment and grade for the recovery tunnel.

A 7-ft diameter steel pipe was jacked from the eastern side of the alignment towards the trapped MTBM.



The recovery tunnel alignment was configured to reach the jack-knifed MTBM with the MTBM located hard against the right side of the recovery tunnel. This alignment was designed to both facilitate MTBM recovery and minimize impacts to completing installation of the carrier pipe.



The large diameter pipe reached the MTBM within an inch of line and grade as shown in the photograph above.

A successful recovery included removal of the MTBM which now occupied the width at springline of the recovery tunnel and installation of the carrier pipe.

Selecting a method most likely to succeed in the ground to be encountered along with special attention to accurate locating and alignment control contributed to the success of this project.