



SUBSURFACE CONSTRUCTORS, INC.

A Geotechnical Engineering and Construction Corporation

Metrolink MTR0 2 Tunnel Shoring



Furukawa Rig Installing Tiebacks

PROJECT DESCRIPTION

Subsurface Constructors, Inc. was given the task of building the earth retention systems for a 1.4 mile long stretch of the Metrolink Cross-County Extension Project in St. Louis, Missouri. The project called for excavation depths of up to 40 feet through varying soil conditions and sometimes very tight easement restrictions.

As the shoring contractor for over 440,000 square feet of earth retention for the cut and cover section, Subsurface provided the design and construction services that resulted in several different types of systems, including cantilevered and tied-back soldier beam walls, a 40,000 square foot soil nail wall, secant walls, and a double row strut and waler system. Soldier beam walls consisted of both face mounted wood lagging and welded wire-reinforced gunnite. The walls of the shoring systems were also used as a one sided form for tunnel walls in some places.

PROJECT TEAM

Owner:	Metro St. Louis	Geotechnical Engineer:	URS Corporation
General :	McCarthy Construction	Earth Retention System Designer/Contractor:	Subsurface Constructors, Inc.