PROJECT OVERVIEW AND CHALLENGES

Bradshaw jacked 6,000’ of 48” polycrcte sewer pipe using slurry microtunneling through rock and mixed face ground conditions. The longest microtunnel drive was over 900’. Drill and blast tunneling was used for 600’ of the sewer installation. The rock strength (UCS) was up to 43,500 psi. Eleven access shafts with pre-cast manholes and/or cast-in-place structures were installed. A unique live sewer crossover structure was installed in an elliptical NATM shaft 40’x70’. Finally, two 48” polycrcte river crossings and 1,500’ of 18” DIP sewer pipe were opencut. The challenges on this project were extremely hard and abrasive rock ground conditions, limited access to jacking and receiving pits, and the project location in a highly visible part of the City’s business and education centers.