

DEWATERING CONTRACTOR SLC AIRPORT CENTRAL TUNNEL

SALT LAKE CITY, UTAH



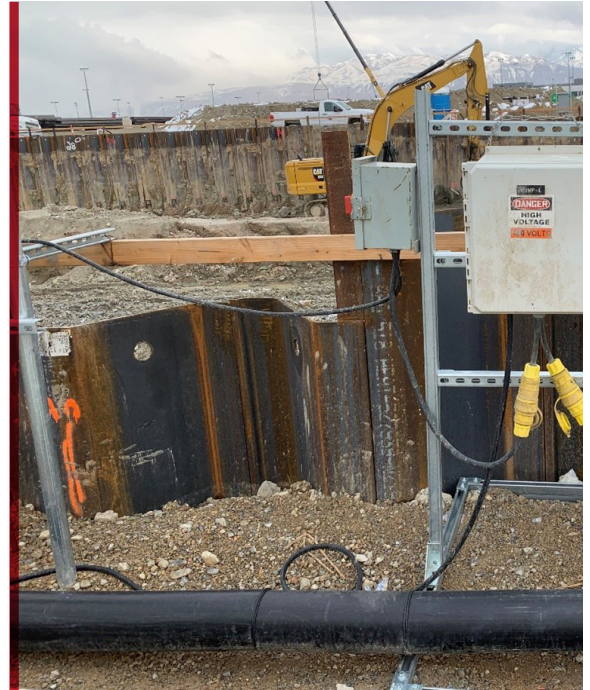
Y GRIFFIN

DEWATERING CONTRACTOR

SLC AIRPORT CENTRAL TUNNEL

The Salt Lake City Airport serves over 26 million travelers each year. A rebuild of the airport was necessary to support traveler demand and is designed to meet Salt Lake City's needs for decades to come and be adaptable to the ever-evolving aviation industry. As part of the expansion and renovation the Central Tunnel is a passenger thorough fare with moving walk-ways that connects the A & B concourses - making the Airport much easier to navigate. The Central Tunnel is big enough to add a passenger tram system when needed in the future.

The Client teamed with Griffin Dewatering early in the design of the project to develop and implement a comprehensive groundwater control plan. The tunnel construction project required 35-ft. deep excavations along with depressurization and dewatering of the underlying soils



THE CHALLENGE



- › A deep 35-ft. excavation with sheet pile shoring was required for this project.
- › Highly stratified soils and underlying alluvium caused difficult dewatering conditions and the risk of unstable soils near the planned excavation depth.
- › Water treatment for hydrocarbon contamination was also required for several wells.
- › High piezometric water tables necessitated specific drilling techniques for borehole stability

DEWATERING CONTRACTOR

SLC AIRPORT CENTRAL TUNNEL



THE SOLUTION: CUSTOM DESIGN AND ENGINEERING OF A DEEP WELL SYSTEM

Griffin provided a turn-key solution and completed all dewatering permitting, design, submittal and installation. Griffin's deep well system design was optimized for the difficult dewatering conditions at the site.

Griffin worked with the Client to develop the best value dewatering and treatment plan that incorporated construction groundwater control with the safe removal of groundwater contaminants.

Griffin designed and installed a deep well dewatering system to target the coarse alluvium from 45-ft. to 85-ft. below grade. Large diameter wells were drilled and completed to 85 ft. below grade to depressurize the formation below the tunnel excavation.

The dewatering system produced approximately 550 gpm and the depressurization of the formation provided a successful project with limited sumping.

DEWATERING CONTRACTOR

SLC AIRPORT CENTRAL TUNNEL



The Solution Continued:

Large diameter wells were drilled up to 85-ft. below the excavation depth to depressurize the underlying soils and pump high volumes of water. Elevated casings and specialized drilling rigs were employed in order to safely and effectively drill the wells to the design target depth given the high piezometric water table.

Temporary water treatment was also required to remove hydrocarbon contaminants from the effluent of several wells. Griffin designed and installed the temporary treatment system to remove the contaminants and allow discharge to continue.

GRIFFIN DIFFERENCE



- › Griffin was able to successfully design, install, monitor, and remove the full system while allowing the Client to meet their goal.
- › Griffin overcame these challenges by using our vast experience, the knowledge of our treatment and design teams, and our superior operations team
- › Griffin helped to manage costs by monitoring the dewatering wells and the treatment system simultaneously
- › Controlled the dewatering flow to minimize treatment costs while maintaining a safe, workable site with the required drawdown of the water table