

MILL CREEK DRAINAGE RELIEF TUNNEL

Southland Contracting / Mole Constructors JV



Southland Holdings, Inc. specializes in infrastructure construction in the US and internationally. Working alongside the Southland Mole Joint Venture located in the Dallas-Fort Worth region, they've undertaken construction of the Mill Creek Drainage Relief Tunnel, a five-mile tunnel designed to provide 100-year flood protection in the east Dallas area.



Designed to improve stormwater management, the tunnel will offer long-lasting protection for schools, medical facilities, businesses, and residents in the area. At completion, the tunnel will be approximately 30 feet in diameter, allowing for a maximum flow of nine million gallons per minute—providing critical relief of flooding during large rain events.

With seven shafts and a total volume of 160 million gallons, the Mill Creek project is the largest water tunnel project under construction in North America.

MEETING UNDERGROUND SAFETY CHALLENGES

Southland is always concerned about worker safety and large projects that require underground construction often carry increased risks, where a wide variety of accidents can occur—from falling pieces of equipment to slips that result in a broken leg.

“The system Tunnel Radio delivered enables reliable voice communication the entire length of the project. It’s been fundamental in providing the safety and operational efficiency we need to get this job done.”

—Jason Lipp, Southland Holdings

“When we send our crews in, we want to ensure they’ll be able to focus on what they’re doing without needing to worry about being cut off from the surface or the rest of their team,” says Jason Lipp, Senior Project Engineer for Southland. “When help is needed, reliable communication is essential.”



The project will provide 100-year flood relief for 2,200 commercial and residential properties. Here, the "Big Tex" TBM is assembled above ground in preparation for deployment.

To address this challenge, they sought a trusted communications partner—Tunnel Radio of America. With decades of experience in confined space communications, Tunnel Radio serves an extensive list of customers in government infrastructure, including our nation's dams, water purification, and national defense sites, along with mining, and shipping and freight rail companies—making them the right choice to address the communication system for the Mill Creek Drainage Relief Tunnel Project.

CREATING THE COMMUNICATION SOLUTION

Tunnel Radio engineered a custom implementation of their Ultracomm® Leaky Feeder System. Accurately described as radiating

cable, “leaky feeder” is so-called because it contains openings in its outer shielding that allow radio signals to leak in and out of the cable for the entire length of its application.

Amplifiers placed at evenly spaced intervals along the length of the cable pick up and transmit the signals, allowing them to radiate from the whole length of the cable thereby enabling constant RF coverage throughout the entire span of the tunnel. No matter where the workers are located in the tunnel, they're able to contact each other and the surface via handheld radios.

"The system Tunnel Radio delivered enables reliable voice communication the entire length of the project," says Lipp. "It's been fundamental in providing the safety and operational efficiency we need to get this job done."

As the project continues, Tunnel Radio remains in full support of Southland Contracting / Mole Constructors JV.

TUNNEL RADIO

With nearly 40 years of expertise in confined space communications, Tunnel Radio knows firsthand that reliable connectivity and communication isn't just a matter of convenience—it's a critical component of worker safety. Contact Tunnel Radio today to learn more and get in touch with our team of communication experts.