The Underground Construction Association (UCA) of SME held a webinar titled *Underground Construction During the COVID Age* on May 21. Three major U.S. tunneling project managers shared stories about adapting to the challenges raised by COVID-19. The overarching theme was one of adaptation and steep learning curves in a time of great uncertainty.

Strong safety cultures, creative problem solving, flexibility, strong leadership and transparent two-way communication were all featured in the talks, which were moderated by Mike Roach, chief estimator at Traylor and Erika Moonin, president of Moonin Associates. The three speakers included Grant Milliner of Kiewit, Mike Smithson of Skanska and Dan Schall of Barnard.

Milliner, who is project manager on New York City’s Rondout Bypass Tunnel Project with contractor Kiewit-Shea, discussed new procedures and policies they implemented to make the site as safe as possible for their essential workforce. They brought on third-party EMTs to conduct temperature checks for every person coming onto the site and began thorough and regular cleaning practices, including sanitizing the Mantrip, tools, equipment and change houses. And instead of in-person meetings, they strongly encouraged webcam calls as part of their “Social Distance Cops” COVID-19 response team.

When disinfectant and hand sanitizer was in short supply, the project team responded by making its own pocket-sized sanitizers and wipes in baggies.

Milliner also explained how they diligently monitored absences and followed through with a risk assessment decision matrix when employees returned to work. The project has had 12 tests taken for COVID-19, none of which came back positive.

With a presentation focused on different personnel and behavior-related challenges, Smithson reported about two LA Metro projects: the Regional Connector Transit Project where Skanksa is in joint venture with Traylor and Section 1 of the Purple Line Extension.

At first there was a significant amount of uncertainty and caution about whether we were even considered essential services or not,” Smithson explained. “Many subcontractors refused to come into work…we have come a long way in the last few months.”

Skanska created various PPE requirements for different levels of risk. With face shields and masks, one of the challenges is communication, said Smithson: “In an underground environment where you have fans running and TBMs, it’s already noisy and very difficult to communicate.” Fogging of eye protection and muffled voices, in combination with social distancing, hampered production considerably for all three projects.

With 700 craft on Skanksa’s two L.A. Metro projects, there have been 12 positive test results, with twice as many suspected cases which could not be confirmed due to a lack of testing early on. Another barrier Smithson relayed is the delicate nature of disclosing
risks while also respecting HIPAA concerns and workers’ privacy.

For the Barnard-Bessac project team on the Silicon Valley Clean Water Gravity Pipeline Project in California, Schall spoke about the trials and tribulations they faced. “It was ‘learn as you go’,” said Schall.

In the early stages of planning, the project team turned to risk assessment to help them understand and manage the additional hazards posed by COVID. Following a breakdown of “What do we do?”; “How do we do it?”; and then “Keeping up with changes and safety”, they came up with a 29-item plan identifying the high-risk areas of the project.

Schall described the fluid nature of how some measures have changed over time as different needs arose. “The message to our guys was ‘if it’s not working or if it’s difficult, change it, add to it or delete it’.” For example, initially the capacity of the Mantrip was cut from 12 to three, but later glass partitions were added to accommodate more people. Barnard-Bessac closed the dry house at first, but following feedback from workers, it was opened up again with the addition of disinfecting between shifts.

With input and feedback from workers, unions and the health and safety authorities, Schall explained, “It came down to the safety culture. Really, employees have to look after themselves and look after each other.”

Barnard also implemented a one-hour company-wide weekly video call where all its 22 project teams could share tips and feedback. “It was a good, collaborative way to share and have people talk,” said Schall. As all these projects make steps to move forward in a time of uncertainty, there was clear focus on instilling confidence back into the minds of workers whose emotions ran high when there were initially far more questions than answers. As the old proverb goes, necessity is the mother of invention—a philosophy exemplified by the collective efforts of all three managers on these tunneling projects.