

# United States



**Name:** Underground Construction Association (UCA of SME)

**Type of Structure:** non-profit, open association

**Number of Members:** Total number – 1,238, number of corporate members – 65

## ASSOCIATION ACTIVITIES DURING 2020 AND TO DATE

Throughout 2020 and to date, the UCA of SME continued to promote the wise, efficient and sustainable development and use of underground space. Our work continued in the face of COVID-19. Some of the ways that we are accomplishing this are:

- 2020 George Fox Conference: A one-day in-person conference provides concise information on the theme of design and construction of complex projects (2020).
- 2021 George Fox Conference: This one-day conference was not held in person, but a virtual session was used to educate the industry on some key developments in covid contracting as well as a feature presentation on the history of this conference and George Fox himself.
- 2020 Cutting Edge Conference: Held virtually and included several hours of presentation and discussion on advances in tunnelling technology.
- Held a fully virtual North American Tunneling (NAT) Conference in June 2020.
- Our Young Members and Women in Tunneling groups continued their social and technical activities focused on recruitment and diversity in the tunnel industry.
- We held several technical webinars on lessons learned of business during the time of COVID.
- We began a focused effort to mirror each ITA working group with an in-country USA sub-group that will support our WG representative and assist each working group.
- Published four editions of our magazine, "Tunneling & Underground Construction".
- Published the North American Tunneling Conference Proceedings Book in 2020
- Continued and accelerated efforts to become the main point of contact for underground construction with other professional associations, such as transportation, water and wastewater industry associations with tens of thousands of members.

Due to our inability to boost membership at our in-person events, our membership dropped by 20% in the past 12 months.

## CURRENT TUNNELLING ACTIVITIES

There are dozens of notable tunnels currently under construction in the United States. These include:

### Highway Tunnels

- The Parallel Thimble Shoal Tunnel project in Virginia Beach, VA continues. This EPB TBM excavation will twin the existing immersed tube tunnel under the Chesapeake Bay constructed between 1960–1964.
- Hampton Roads Bridge and Tunnel Project in Virginia Beach, VA is underway. This is another example of an EPBM tunnel paralleling two immersed tube tunnels.

### Transit Tunnels

- Los Angeles, CA continues to construct five major subway projects; Crenshaw/

LAX Corridor (tunnelling completed), Regional Connector (tunnelling completed), Purple Line Extension–Phase 1, 2 and 3. Combined, these projects will add 19 miles of new commuter lines and connect existing lines for shorter overall travel times.

- Las Vegas Convention Center is underway with a people mover tunnel is completed, with an extension that is currently under construction.

### Water Supply

- TBM tunnelling is completed, and lining operations continue for a water supply tunnel beneath the Hudson River in upstate New York on the Rondout West Branch Bypass Tunnel. As the project name implies, this tunnel will bypass a deteriorating portion New York City's main water supply.
- Mill Creek/Peaks Branch/State Thomas Drainage Relief Tunnel Project. This project includes 26,385 lf of 32.5-ft excavated diameter (30-ft ID) tunnel and 7 shafts (ranging in depth from 120 to 200 vf).

### Wastewater

Sewer and drainage tunnels continue to be the most prevalent tunnels being constructed in the United States. Several municipalities continue with their programs, as others are just beginning.

- In Washington, D.C., The Northeast Boundary Tunnel CSO tunnel is nearing completion of tunnel work.
- St. Louis, MO currently has wastewater tunneling underway, at Deer Creek tunnel



(22,800 lf of tunnel, 19 ft diameter, with an average depth of 120 ft. There are 5 drop shafts). Jefferson Barracks Tunnel (17,800 lf of 11-ft excavated diameter tunnel, and the installation of a 7-ft diameter FRP carrier pipe and fiber optic conduits in the tunnel). Maline Creek CSO Storage Tunnel (now 90% complete).

- The Ship Canal Water Quality Project in Seattle is underway. This 18-foot diameter x 14,000-foot-long tunnel project includes the construction of five shafts.
- Cleveland, OH has the Shoreline CSO tunnel about to get started in construction. Westerly Storage Tunnel (CSO) is approximately 50% complete.
- Joint Water Pollution Control Plant Effluent Outfall Tunnel. This outfall tunnel for the Los Angeles County Sanitation Districts issued NTP on April 8, 2019. The tunnel will be approximately 7 miles long and 18 ft ID.
- Indianapolis, IN Fall Creek Tunnel began in 2019. This 17,850-ft, 18-ft finished concrete lined tunnel is approximately 250 ft deep and features ten CSO connecting structures/deaeration chambers and tunnel connection adits.
- Ohio River Tunnel (ORT) for the Louisville

and Jefferson County Metropolitan Sewer District (MSD) issued NTP on Nov. 8, 2017, and is scheduled to reach Substantial Completion by Dec. 31, 2020 (Final Completion: March 31, 2021). The tunnel length is 21,300 ft; Diameter: 22 ft

excavated, 20 ft finished; Depth – 200 ft; Shafts – 6.

- Hartford, CT, Ft. Wayne IN and Louisville, KY, San Jose, CA, Alexandria, VA have the first of their wastewater tunnel projects underway.

