



## MICROTUNNELING FAQ: NOISE AND VIBRATION MONITORING

### Q: What construction is happening from Bay Park to Sunrise Highway, and from Sunrise Highway to Cedar Creek?

A: From the South Shore Water Reclamation Facility in Bay Park to Sunrise Highway (close to Mill River), and from Sunrise Highway to the Cedar Creek Water Pollution Control Plant in Wantagh (close to the Wantagh State Parkway), construction activities to support microtunneling for the Bay Park Conveyance Project are underway. Microtunneling is a trenchless digging technique used to build tunnels deep below the surface, from discrete locations called shafts.



### Q: What is a shaft? What are the work activities at each shaft and what may I expect to see?

A: To support microtunneling and minimize surface disturbance, 14 vertical shafts are being constructed, with most of them complete. Each shaft is approximately 25 feet in diameter and approximately 60 feet deep. Construction of each shaft includes installing Support of Excavation (SOE), a retaining wall to support the earth during excavation. Some shafts are constructed using secant piles (interlocking concrete cylinders) and other shafts are constructed using Cutter Soil Mix (CSM) panels (cement panels constructed of native soil mixed with a binding material). Cedar Creek Shaft 6, adjacent to Lakeview Road in Bellmore, is constructed using sheet piles and metal sheeting. SOE installation at shaft locations requires various types of construction machinery including drill rigs, cranes, concrete pump trucks, and other equipment. SOE is followed by jet grout installation, a technique used to waterproof and mitigate groundwater infiltration before a shaft is excavated. Following excavation, a microtunnel boring machine (MTBM) is deployed from the base of a shaft and moves underground from one shaft to another, allowing new conveyance pipe to be installed. Microtunneling is a technique that minimizes surface disturbance to the surrounding communities.



**Q: What noise and vibrations might I experience near a shaft site and how long will it last?**

A: The duration and intensity of noise and vibrations depend on the construction activity. For example, SOE and jet grout installation generate noise and involve equipment that may be noticeable to residents directly near each shaft site. At Cedar Creek Shaft 6, the installation of sheet piles generates vibrations that may be felt by nearby residents. Construction-related truck traffic can also generate noise and vibrations.

**Q: How will noise be monitored and controlled?**

A: Western Bays Constructors (WBC) is conducting noise monitoring prior to and during active construction at select shafts located near occupied buildings. Noise monitors are deployed to collect continuous readings that are logged and reviewed. Additionally, WBC continues to monitor and evaluate construction techniques and equipment to minimize the impact of noise to the surrounding community.

**Q: What happens when there is a noise exceedance?**

A: WBC strives to ensure noise levels resulting from construction do not exceed local noise ordinances for both day and night operations. If noise monitors detect levels exceeding a noise threshold (response level), the Project Team receives electronic alerts. In such cases, WBC reviews construction techniques and adjusts where possible to lessen the disturbance or reduce noise levels. The Project Team may also take actions based on community complaints to further reduce noise levels.

**Q: How will vibration be monitored and controlled?**

A: WBC is conducting vibration monitoring prior to and during active construction, including microtunneling, at shafts located near buildings. Vibration monitors are deployed at the active work sites to collect continuous readings that are logged and reviewed by the Project Team.

**Q: What happens when there is a vibration exceedance?**

A: Vibration thresholds (response levels) are intended to protect surrounding infrastructure and buildings. If there is an exceedance of a vibration threshold, the Project Team receives electronic alerts. In such cases, WBC reviews construction techniques and adjusts activities to reduce vibrations. The Project Team may also take actions based on community complaints to further reduce vibration levels.

**Q: If I have questions or concerns, who should I contact?**

A: The Community Outreach Program is committed to a robust engagement process and maintaining an open line of communication throughout construction. We are also committed to minimizing disruption to neighborhoods near construction. The Community Outreach Team is available to answer questions throughout the duration of construction. For more information, visit <http://www.BayParkConveyance.org> and our Facebook page [@BayParkConveyance](#) and register for [email updates](#). Our Community Information Center is located at 265 Sunrise Highway in Rockville Centre; please visit our website for hours. You may contact us via the Project's 24/7 hotline at (516) 252-6121 or email us at [bayparkconveyance@gmail.com](mailto:bayparkconveyance@gmail.com) with any questions.

