



YOUNGER MEMBER GROUP



JUNIOR TECH TALK

WHEN

Wednesday, March 18
2026

5:30 PM - 8:00 PM

WHERE

GeoEngineers
239 Causeway Street,
Ste 400

Boston, MA 02108

Hybrid option available through Zoom

REGISTRATION

\$15 Member

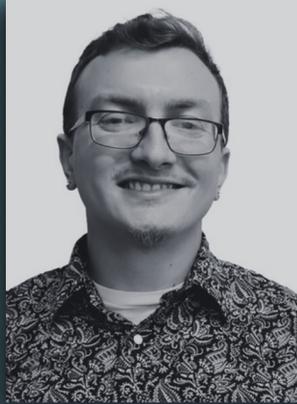
\$20 Non-Member

\$15 Public Sector Non-Member

\$5 Student

Join us for a series of presentations focused on the management of various civil engineering related projects in the Boston Area!

Q&A to follow.



Alex Macon, EIT

Alex is a Staff Geotechnical Engineer and member of GeoEngineers' Boston development team. He is involved in all phases of geotechnical consulting, including planning and overseeing investigations, evaluating soil conditions, developing recommendations, preparing construction specifications, and providing construction oversight. His experience spans deep and shallow foundations, ground improvement, mass earthwork, support of excavation, and instrumentation monitoring.

Speaking Topic: Geotechnical Engineering is often one of the most variable aspects of the design process, as each site presents its own unique set of challenges due to soil conditions.

This presentation explores the geotechnical considerations and evaluations undertaken during the Foxboro MBTA Station project in preparation for the World Cup. It highlights specific challenges encountered and key considerations addressed throughout the construction process.



Omar Mejia-Olguin

Omar is a Staff Engineer at Delve Underground with experience in structural design and analysis for heavy civil, transportation, and tunnel rehabilitation projects. His work includes structural evaluation, reinforced concrete and steel analysis, design coordination, and field investigation support on projects such as the Callahan Tunnel Rehabilitation Project, MBTA Facilities design support, and Manhattan Tunnel design analysis. Omar also brings prior experience from internships on notable building and civil projects.

Speaking Topic: Structural design is often associated with applying code-prescribed formulas to determine rebar or beam sizes based on structural analysis. In practice, however, successful structural design requires extensive coordination with owners, other disciplines, and stakeholders to address constraints and functional requirements. Equally important is ensuring that the design intent is clearly communicated and accurately executed during construction. This presentation outlines the challenges encountered and solutions developed during the MBTA Downtown Crossing Station Passageway repairs. It highlights the collaborative processes and communication strategies that were essential to delivering a well-coordinated design and achieving successful project completion.



Andrew Fiore and Zachary Caldwell

Andrew is a Project Engineer at Skanska USA Civil Northeast with six years of experience in the heavy civil construction industry. After earning his Civil Engineering degree from the University of Massachusetts Amherst in 2020, he began his career at SPS New England and Barletta Heavy Division, working on projects such as the I-495 Haverhill Bridge Replacement, Belden Bly Drawbridge Replacement, and the I-495/I-90 Interchange Replacement. At Skanska, he currently oversees structural concrete operations for the Rourke Bridge Replacement project.

Zachary is a Project Engineer with Skanska USA Civil. He has an undergraduate and master's degree in civil engineering from Wentworth Institute of Technology, with a minor in Environmental Engineering. He's been with Skanska for almost five years full time, and four years part-time prior to that over the course of 5-internships. While at Skanska, he has worked on multiple projects consisting of bridge work, rail work and utility work.

Speaking Topic: The Skanska USA Civil Northeast team is constructing the Rourke Bridge Replacement Design-Build Project in Lowell, MA. MassDOT accepted Skanska's final ATCs (alternative technical concepts) which made several major improvements to the initial BTC (base technical concept). Some of the major advantages of Skanska's ATCs include improved constructability, reduced long term maintenance costs for MassDOT, and improved aesthetics. One way long term maintenance costs will be reduced and constructability improved is utilizing hybrid steel girders. The hybrid girders utilizes 70 KSI steel for the flanges and 50 KSI steel for the webs to maximize efficiency of materials. This design allowed Skanska to propose a 7-girder bridge design vs. the 8-girder design in the BTC. This improvement reduces the weight of steel by more than 1.1 million lbs.



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