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Brennan Consulting underway on Binney and MXD substation

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Cambridge, MA Brennan Consulting is underway on one of its newest life science projects at 290 Binney St. with A. A. Will and Turner Construction. The MXD Substation Development Plan is the newest life science product to come online in Kendall Sq. where tech, R&D, MIT, and Mass General are building new and repurposing dated structures.

Delivery of 290 Binney is anticipated mid-2026 and construction is ongoing for the three-story, subsurface MXD Eversource substation and 18-story west tower. Brennan is currently performing high-precision slurry-wall foundation layout and work includes tying into existing control and providing layout and as-builts for slurry guide walls. The subsequent phase includes layout and survey of load bearing elements for steel. Accurate data for concrete deep foundations is essential for the future substation, buildings, and considerable utility work necessary to bring such an innovative project to Cambridge. The construction site is crowded, with an unusual 900 ft. long

control line, compounding survey complexity. Heavy trucking, cranes, equipment, and support crews accessing the site during slurry wall assembly make for intricate urban conditions.

Due to anticipated energy demands, construction for the Greater Cambridge Energy Project by Eversource includes more than eight miles of trenching and multiple subsurface duct banks housing eight new 115-kilovolt underground transmission lines in Cambridge, Somerville, and Allston/Brighton. 36 new distribution feeders are also proposed connecting the new substation with Binney and the existing Kendall Sq. distribution infrastructure. The proposed three-story substation will be one of the only below-grade substations in the United States. According to Eversource, lower levels can house transformer vaults, cable routing, circuit breakers, switchgear, and maintenance equipment. Mid-levels can hold capacitor banks, relays, and equipment protection systems. Upper levels can house ventilation equipment, fire protection, and communication systems. (Renderings courtesy NBBJ, Sasaki)

Also embraced in the programming are on-site amenities such as improved pedestrian experiences, outdoor gathering spaces, and connections to Binney, Broadway, and Galileo Galilei Way. The center plaza has been crafted to conceal the substation's air intake via a 50 ft. high mirrored and perforated "breathing tree" sculpture, the exhaust stack via a café building, the platform hatch, and the equipment head house. Cooling capacity, acoustics, and 100-year flood impacts on ventilation are some of the more unusual considerations studied for the plaza design.

Life science projects also underway at Brennan include Commonwealth Fusion, Project Bruins, 2 Harbor St., UMass Science Building, Westford Antennae, Mass General, and Analog Devices.

Services provided on these and 290 Binney include:

- Pre construction/existing conditions surveys - sites, buildings, roads & bridges;
- Cross-section & volume surveys - lines & structures;
- Monitoring wells - layout & location - utility location & layout;
- Precise deformation monitoring - quantity take offs;
- Line & grade - topographic & detail surveys;
- Pile driving layout - traverse/horizontal control;
- Foundation layout - vertical control; and
- Anchor bolt/column layout - as built/as constructed surveys.

Visit www.brennanconsults.com to learn more.

