

Harvard Utility Infrastructure North Campus

Harvard University's North Campus Expansion project includes six phases of construction and renovation for 14 new buildings totaling 1.2 million square feet. The project's utility master plan provided a detailed design guide for upgrading the campus infrastructure and for installing generation and distribution systems to service the new buildings.

PROJECT RESULTS

Detailed planning and design, along with a close working relationship with Harvard Engineering and Utilities, resulted in the successful upgrade of the University's utility system to service the North Campus Expansion.



INTRICATE SITE CONSTRAINTS

The infrastructure project weaves through the historic campus, confronting severe site constraints. Detailed planning would be required to minimize disruptions to campus activities and to avoid potential damage to historic artifacts, artwork, and laboratory spaces located near demolition and construction work. In addition, the new laboratory and vivarium building spaces would place much greater demands on heating, cooling, and electrical loads than would academic space.

BROAD SERVICES, CRITICAL DETAILS

Kleinfelder worked on both the utility relocation and direct bury phases of this utility upgrade. Services included managing the design coordination and construction administration, as well as supervising six disciplines, including site/civil, structural, geotechnical, environmental, permitting, and landscaping. To complete structural modifications and reconstruction of the concrete utilities tunnel connecting the new direct bury utilities to the existing, Kleinfelder used a vibration monitoring program during construction in order to reduce the vibration effects on the surrounding sensitive materials.

Location:

Cambridge, Massachusetts

Owner:

Harvard University

