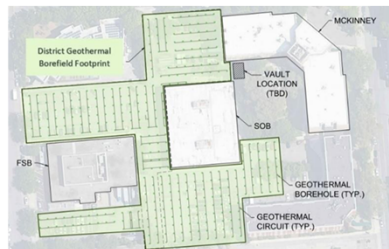
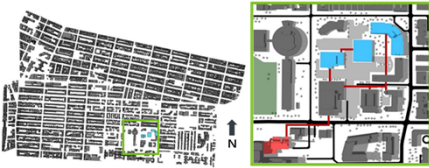


**NYC H+H/Kings County North Campus District Geothermal System
Category A Feasibility Study**

Kings County

Technical Lead: LaBella Associates



The Site & Beneficiaries

The New York City Health and Hospitals Kings County North Campus has engaged LaBella Associates, the New York Power Authority (NYPA), and Brightcore Energy, LLC to conduct a district geothermal feasibility study. The NYC H+H/Kings County North Campus includes a set of three buildings which provide healthcare and food services within Brooklyn, NY. The three buildings are served by a variety of heating and cooling equipment. The H+H/McKinney building currently has steam-to-hot water heat exchangers which serve hot water heating coils in VAV's and exterior FCUs(Fan Coil Unit). The area has access to several large parking lots that would house potential boreholes and currently operates on an aging district steam system. While two additional buildings exist on the campus that have potential for future expansion in subsequent phases, the feasibility study focused on the H+H/McKinney building, the Food Service building, and the Support Office building.

Potential Thermal Resource

The primary objective of this study is to assess the feasibility of a district geothermal system within the NYC H+H/Kings County North Campus. The system would utilize thermal energy from the ground via vertical boreholes to heat and cool the three buildings and would replace the existing district steam system.

Potential Configuration

Several different thermal resources can be integrated into district geothermal systems. Depending on geology at the site, availability of wastewater mains, and proximity to rivers, lakes, and ponds all can play a role in providing heat to the loop. While the NYC H+H/Kings County North Campus will primarily use ground source heat exchangers for the district geothermal preliminary design, an overview of other thermal resources will be provided as well. The study will also investigate additional distributed energy resources (DERs) such as photovoltaics and battery storage, which can be used to offset the increase in electricity usage and demand due to the geothermal system.