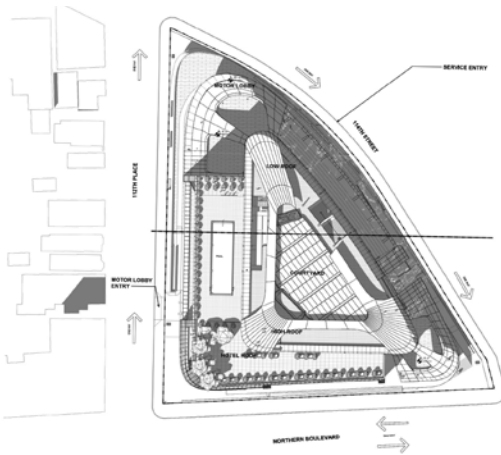


**Fleet Financial
Category A Feasibility Study
NYSERDA PON 4614**

Queens County

Technical Lead: MEP
Geothermal Engineering

Anticipated completion of
study/availability of final
report: October 2021



V1 6/2021

The Site & Beneficiaries

Fleet Financial will construct the Eastern Emerald mixed-use complex in the Corona section of Queens with three towers on a common podium occupying a full city block. This complex, collectively 800,000 square feet, will be analyzed to explore district-style heat pumps. These three towers and podium have diverse occupancy patterns and thermal load profiles, consisting of multifamily-residential, hotel, office, restaurant, community conference center, auditorium and retail. The analysis will quantify the peak of the composited thermal load and compare it to the sum of the individual peaks in order to assess the load-flattening benefits of aggregating into a district.

Potential Thermal Resources

The primary opportunity anticipated will leverage heat recovery heat pumps to move heat from one building to another, and supplemental thermal resources, if needed, could include ground-coupled boreholes, energy foundations (structural thermal piles), air-source heat pumps, an ornamental fountain that could be used for heat rejection, and/or sewage water.

Potential Configuration

Will explore developing a central thermal plant, which will house the heat pumps which will generate hot and chilled water to heat and cool the facility via distributed pipes throughout the facility. Benefits of this configuration include an opportunity to integrate with other thermal infrastructure (air source, ground source, sewage). Project concept will include utilizing Solar PV and battery storage as a resiliency component of the design to meet the peak and emergency electric load on this campus. This project is focusing on being an all-electric infrastructure that will meet the goals of the State's Climate Leadership and Community Protection Act and the City's Climate Mobilization Act.