

Bringing Geothermal Energy to Ann Arbor Public Schools

Ann Arbor Public Schools is continuing with construction work for the New Dicken Elementary School and will be installing Geothermal Heating, Cooling & Ventilation Systems, starting as early as August 4, 2025.

In order to create new and improved educational environments for students, teachers and the school community, and in alignment with the goals outlined in the Ann Arbor Public Schools (AAPS) Phase 2 Capital Program plan, contractors are preparing to significantly improve the mechanical heating, ventilation and air conditioning systems of Dicken Elementary School with a new ground source heat pump (or geothermal) system. This investment will assist the district in meeting its green building energy efficiency targets, reducing operating costs, and reducing environmental footprint.

This high performance geothermal system upgrade requires the development of a bore field outside of the school building, consisting of over 50 bore holes that are nearly 550 ft deep. The geothermal well-digging process utilizes hydrant (city) water and clay, which creates a "slurry" mix on the site - water, mud and clay, which will be visible during the effort but cleaned and restored after completion of the bore field. AAPS will work with contractors responsible for the project to comply with the hours of operation and dB(A) levels outlined in the City of Ann Arbor municipal ordinance, typically operating Monday through Saturday from 7am up to 7pm. The drilling portion of the project may take 5-6 months to complete.

What is Geothermal Heating and Cooling?

A <u>Geothermal Heat Pump (GHP)</u> circulates water or glycol through pipes buried in the ground, to heat and cool a building's HVAC system. A geothermal heating and cooling system takes advantage of constant underground temperatures to efficiently exchange temperatures, heating buildings in the winter and cooling buildings in the summer, all with the use of electricity. When paired with electricity generated from solar or other clean renewable energy equipment, this system can operate free from fossil fuels.

To see previous questions regarding geothermal, please visit the FAQ page.