

TINKER AFB, OK UTILITY SYSTEM DESCRIPTIONS

System Descriptions: The following information is only an estimate of the size, scope, and general description of the electrical, natural gas, potable water, and sanitary wastewater utility systems at Tinker AFB and is subject to change. Tinker AFB occupies approximately 5,000 acres of real estate and is located 8 miles southeast of Oklahoma City, Oklahoma. It has 771 buildings and 730 family housing units containing 15.5 million square feet of floor space.

Electrical: The electrical service is provided by Oklahoma Gas and Electric (OG&E) via a combination of overhead 138 kV and 69 kV lines. Tinker AFB owns and operates three of four substations on base property; OG&E owns and operates the substation transformers at the remaining station. Power is distributed at 12,470 volts to feed distribution transformers and other miscellaneous equipment. The distribution system is of a loop-type and is sufficient for current base operations; however, minimal capacity exists for future expansion. There is approximately 74,000 feet of overhead circuits and approximately 162,000 feet of underground circuits.

Natural Gas: Natural gas is provided by Oklahoma Natural Gas Company (ONG) at three individually-metered stations. The distribution system consists of approximately 263,000 linear feet of underground piping, the majority of which is over 50 years old. The system has steel pipe, some with cathodic protection, and polyethylene pipe. Gas distribution is provided at a pressure of 45 psig or lower throughout the system, with military housing being provided at 17 psig.

Potable Water: Tinker AFB provides its own water from 23 wells located throughout the base. These wells have a combined pumping capacity of 5148 gpm. Water produced is stored in five water tanks with a combined capacity of three million gallons. Water is also available from the City of Oklahoma City at two tie-in points: a 75 psi 8-inch line and a 75 psi 10-inch line. The distribution system is almost entirely decentralized and consists of approximately 562,000 linear feet of asbestos cement, cast iron, ductile iron, and PVC piping as well as approximately 600 fire hydrants.

Sanitary Wastewater: The sanitary wastewater collection system consists of approximately 255,579 linear feet of clay, some lined with plastic, and PVC piping. Manholes are both brick and concrete. There are four lift stations integral to the collection system operation. The sanitary waste stream is collected and metered prior to discharge to the City of Oklahoma City through a single 24-inch main.

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