



**The City of**  
**OKLAHOMA CITY**  
**UTILITIES DEPARTMENT**

**September 2, 2022**

**Project Title:** Booster Pump Station Electrical Improvements

**Project Location:** Booster Pump Station Nos: 11, 12, 15, 18, 19, 21, 22, and 23

**Project Number:** WC-1039

**Estimated Project Cost:** \$1,800,000

**Project Description:** This project will upgrade, add, or replace select electrical infrastructure at Booster Pump Station Nos. 11, 12, 15, 18, 19, 21, 22, and 23 to current industry standards.

**Background:** The City of Oklahoma City owns and operates several booster pump stations. The majority of these facilities include a single utility service that feeds a motor control center (MCC), which then distributes power to pump motors and other equipment. Most of the distribution gear, programmable logic controllers (PLCs), switches, etc. are from the original construction and require replacement for reliability and continued safe operations of the facilities. The 2018 projects (WY-0002 and SY-0003) evaluated power availability, analyzed short-circuit current, provided for the analysis of arc flash hazards, and identified immediate and near-term improvements. In addition, a Booster Pump Station Facilities Assessment Report (WY-0047) was updated in 2022 to identify remaining improvements in the following categories: regulatory, operations & safety, the useful life of equipment, coatings, maintenance, and enhancement.

**Project Intent:** This project will upgrade the electrical systems needed for arc flash mitigation at the identified booster pump stations. The improvements will generally consist of replacing outdated MCCs, switches, PLCs, starters, etc., and installing current protection devices. In addition, other improvements related to the National Electrical Code compliance, equipment layout, and installation are included in this project so staff and operators can safely operate and maintain the booster pump stations. The engineer will utilize the 2022 Assessment Report, 2018 Arc Flash/Short Circuit/Power Availability Study, and operator knowledge as part of the design process. The engineer will provide preliminary engineering. Final design, bidding, construction administration, construction inspection, and as-built services for the improvements may be by future amendment.