



PROJECT PROFILE

Change Manager Master Services Agreement *City of Santa Ana*

Client background

The City of Santa Ana, located in the heart of Orange County, California, covers approximately 27 square miles and provides potable water service to about 334,000 residents and businesses. The City's centralized SCADA system controls and monitors the City's water and sewer facilities by using a series of radios to transmit data from remote locations to a control room.

Project background

Under its typical design bid build delivery model, the City received varied contractor implementations for its water production facilities, which made consistent operations and maintenance more difficult. To prioritize standardization and create consistent contractor deliverables, the City sought a qualified automation consultant to prepare standardized functional specifications, HMI graphics standards, control panel drawings, automation program testing protocols, and change control mechanisms. In order to instigate a cultural shift toward consistent designs and practices, they needed a consultant to oversee contracted controls programmers.

EA solution

The City awarded Enterprise Automation a qualifications-based contract to serve as an automation and change management consultant. The first step was meeting with City engineers and technicians to document current and upcoming projects and to identify immediate automation opportunities that would align with construction schedules. EA then hosted process control and standardization workshops with City personnel and used the workshop decisions to develop and implement a suite of standardized deliverables: functional specifications, HMI graphics standards, control panel and electrical design drawings/standards, and automation program testing protocols and acceptance criteria. EA also established change control policies and workflows and implemented a source control system and applied the new standards and testing protocols to several pump stations that were in the design phase, while documenting programming standards for use on all future City projects.

Project Manager



**Garrett
Prevo**

Project Technical Lead



**Kyle
Pickrell**

Key Insights:

- SCADA standards development
- Contractor design review
- Automation & electrical standards
- Functional specification development
- HMI graphics standards
- Programmer oversight

Key Technologies:

- Modicon M340 PLCs
- Modicon Magelis OITs
- Radio communication