

Dayton Correctional Institution Switchgear Replacement

Dayton, OH

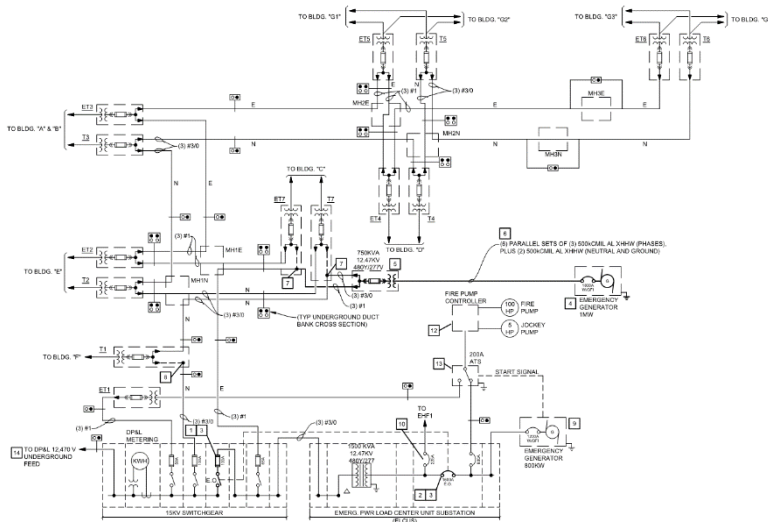
Construction Completion: 2018
Construction Cost: \$280,500
Tri-Tech Services: Electrical Engineering
Reference: Tony Shaffer

richard.shaffer@odrc.state.oh.us

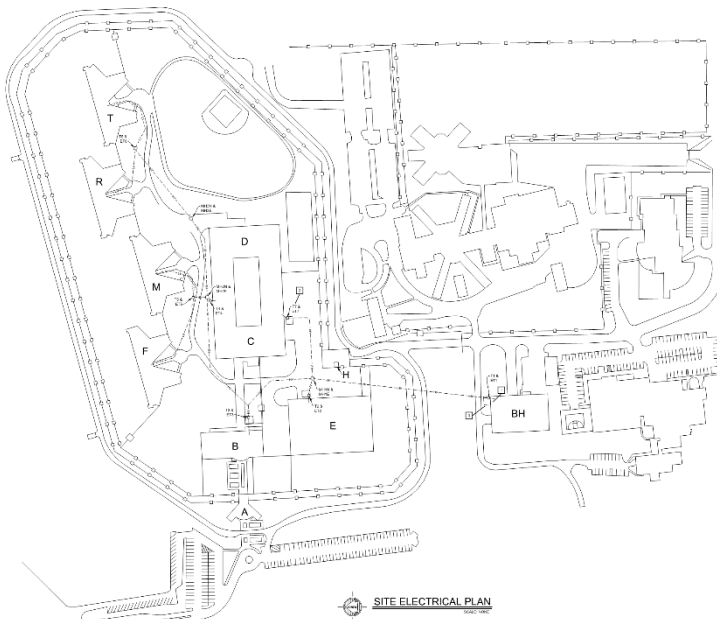
Project Description

The Dayton Correctional Institution utilizes a 12.47kV automatic source selecting switch and a 480V automatic transfer switch, both at the main power house, to transfer between the normal electrical utility service and an on-site back-up generator. The 12.47kV switch utilizes protective relays to coordinate the transfer between the electrical sources. Due to equipment age and maintenance, the relays failed regularly, which required the settings to be adjusted or for the relays to be replaced and prevented a quick transfer of power.

Tri-Tech analyzed the existing equipment installation to verify the maintenance issues and determined feasibility for the equipment replacement. The most feasible and economical solution was to replace the automatic transfer equipment in-place in the existing 12.47kV and 480V switchgear. This required careful coordination of temporary power generators for 12.47kV and 480V power to keep the entire campus energized as normal, with only extremely brief changeover outages when taking the main switchgear out of service and placing it back in service.



SITE SINGLE LINE DIAGRAM
SCALE NONE



SITE ELECTRICAL PLAN

Project Team Members

Dan Frye
Daniel Garman

