

MUNICIPAL BRIDGE UPGRADE AND REBUILD

New bridge operating system provides redundancy, efficiency and equipment sustainability for local DPW client



SOLUTION

- New Allen Bradley PLC system
- Upgraded operator Allen Bradley HMI
- New Allen Bradley DC drives
- Automatic digital operational activity logs
- Improved system fault reporting
- Telemetry box for immediate remote support

RESULTS

- Redundant Control System, assuring non-interrupted operation
- Elimination of manual reporting
- Improved longevity of critical equipment
- Reduction in road closures
- 22% reduction in cycle time
- Improved drawing quality

PROJECT SUMMARY

At Pieper Automation, we pride ourselves in our unique ability to provide complete industrial automation/controls solutions & services for our customers, including on-site support, integration of machines/systems, new equipment design and machine upgrades. Along with our custom assembly machine manufacturing and panel building, we deliver you a seamless solution – from one supplier.

When a local municipality realized a key transportation infrastructure was no longer able to serve the public needs efficiently and safely, they turned to Pieper Automation to provide a turnkey solution to upgrade their bridge control system to meet this demand. Pieper Automation was contracted to provide engineering, installation and start-up to replace an existing obsolete system for the bridge operated and maintained by the City of Racine Department of Public Works.

The project included removal of existing Square D equipment and design/installation of a complete, redundant Allen Bradley PLC system (cold back up, key switch selected) within the existing cabinet using custom-made adapter hardware. Design requirements also included installing a modem for remote support and wireless communication to far pier as well as final drawings.

The new system includes new DC drives have more robust fault messaging, with AB HMI with diagnostics. The new system provides a lift time stamp recording of each operation.

The new system is completely redundant – with hot (on) and cold (off). While equipment enclosure size could not be increased, twice as much hardware was required in the same space. To accomplish this, a special double-layered assembly was designed to accommodate equipment ahead and behind on a swing out door.

Pieper Automation supplied all engineering, design, project management, installation and field support.

"Pieper Automation employees showed us a number of options available on the new control system and actually simplified the way our bridge tenders operate the bridge."

*Thomas M. Eeg, P. E.
Assistant Commissioner of Public Works/Operations
City of Racine*



WE ALWAYS FIND A WAY

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