

AKRON METRO HOUSING AUTHORITY

AKRON, OH, USA

RESIDENTIAL

HOUSING RETROFIT

Akron Metro Housing Authority — Belcher is a 12-storey, multi-use housing and office complex, which required a retrofit to the existing old, degraded system.

PROJECT DETAILS

Control Concepts of Ohio completed this retrofit project with great success.

The hardware for this project included a MACH-ProWeb™ with two EIA-485 channels, one dedicated to third-party integration for the chillers and mechanical room variable-frequency drives (VFDs), and the other for MACH-Pro controllers. A MACH-ProWebSys™ was installed to serve the mechanical room/plant, monitoring refrigeration levels, room temperature, system pressure, and water flow. A second MACH-ProSys™ located in the penthouse was installed to control all aspects of the cooling tower. Mechanical equipment included two screw chillers and two VFD control 15 HP fan motors. Flow sensors were installed to monitor total system flow and to adjust the modulating bypass valve to ensure minimum flow through the chiller. The entire system was recommissioned and put into service promptly and satisfactorily.

Challenges included a non-functional existing sequence of operation, nuisance alarms, and problematic lock-outs. A more thorough and appropriate sequence with improved modes was developed to resolve the issues. The variable flow nature of the system would not have been advisable without the MACH-Pro controllers, coupled with a good team behind the programming and start-up. The customer is very satisfied with the new control system, which now provides control, monitoring, and remote access.

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PROJECT TYPE:

Retrofit

INSTALLATION TYPE:

Chiller, Water Monitoring, Pumps

TOTAL AREA:

200,000 m² (2,152,800 ft²)

EQUIPMENT INSTALLED:

**1 MACH-ProWebSys™
2 MACH-ProPoint™
1 MACH-ProSys™
1 MACH-ProZone™**

NETWORK:

EIA-485, LAN, WAN

INTEGRATION:

BACnet®, SMTP

TOTAL SYSTEM POINTS:

200

**RELIABLE CONTROLS® AUTHORIZED
DEALER:**

Control Concepts of Ohio

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