

*Police service saves over
\$300,000 in energy and
operating costs*



Testimonial:
Calgary Police Service
Calgary, Alberta, Canada

Reduced energy and operating costs
by over \$300,000 in three years.

Cut annual chemical treatment costs
by more than 34%.

Lowered mechanical system labour
demand by 30%.

LANDIS & STAЕFA

www.us.landisstaefa.com

Kelly Pratt, Building Operations Coordinator:

“A building automation system may be a tool of energy management, but it takes teamwork and strong relationships between manufacturer and user to ensure it works effectively. Much of our success can be credited to the commitment and support we receive from the local Landis & Staefa office.”

Client objective 1:

Reduce energy costs for two major city buildings.

Client result:

- > Reduced electricity costs by more than \$198,000 over three years.
- > Reduced natural gas costs by \$61,000 over two years.
- > Total energy costs reduced by 14%, for the three-year study, despite facility expansion.

Client objective 2:

Reduce labour and operating expenses.

Client result:

- > Reduced annual cooling tower chemical treatment costs by nearly \$8,000, or 34%.
- > Reduced costly, after-hour building service calls by 48%, from 73 per year down to 38.
- > Lowered the mechanical labour demand for two main buildings by 30%.

Client objective 3:

Improve indoor air quality.

Client result:

- > Monitoring levels of both CO and NO gases continuously.
- > Substantially shortened response time to out-of-normal conditions 24 hours per day.
- > Enhanced alarm functions enable ventilation system shut-down under alarm conditions.
- > Program complies with Occupational Health and Safety (OHS) guidelines.

Landis & Staefa Solutions:

- > Installed a System 600 building automation system with Direct Digital Control (DDC) to provide centralized control, monitoring and maintenance of HVAC systems, initially for the two largest facilities: The Andrew Davison Headquarters and Administration Building. The System 600 has been expanded to include automation for eight additional district offices and service buildings which total nearly 400,000 ft².
- > Developed a custom control scheme to monitor air quality for the more prevalent CO and NO gas levels in problem areas and building air intake ducts. Enhanced alarm functions enable reporting of out-of-normal conditions and respond immediately with ventilation system shutdown to comply with OHS requirements.
- > Installed automated switching valves on the largest energy consumers: two main, centralized chiller plants. The modification enabled “peak demand limiting” and “free cooling” energy saving opportunities and extended the life of expensive equipment.
- > Automated the control, operation and treatment of the main cooling tower and Air Handling Unit (AHU) to reduce the annual chemical treatment costs by 34%, or nearly \$8,000, over a one-year period.
- > Developed the means of automating and measuring each of the two building’s cooling tower influent and effluent city water levels. The differential allows the building operations staff to calculate the actual amount of evaporation and pursue rebates on city sewer charges.
- > Provide authorized card access system services for the headquarters building, with additional Police Service buildings to be added later.



Profile: Calgary Police Service

The Calgary Police Service provides law enforcement and community services from ten major buildings throughout the city of Calgary.

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