

Located next to the Plains of Abraham, in Quebec City, the 500 Grande-Allée is owned by real estate management company Cromwell. This 12-storey building has approximately 110,000 sq. ft. of rental space.

However, before it could house its commercial, industrial and professional customers, the building, built in 1963, underwent a major renovation in 2012. Only the original concrete skeleton frame was maintained.

From an architectural standpoint, the enhanced version of the 500 Grande-Allée is unique given its exterior curtain walls made entirely of glass. Transformed into a high end open plan building, it's interior layout will be determined once the future tenants are known (walls, lighting and HVAC devices).

Only a minimal structure was therefore required: floors, supporting walls, exterior

walls and ceilings. Decisions regarding the equipment and the location of each device were designed to ensure considerable freedom with regard to future configurations.

For instance, the plans included installing a radiator in each section of the 4-ft-wide curtain wall whereas in other circumstances, longer radiators could have been chosen to cover a greater area. In total, approximately 900 radiators were installed and linked to an equivalent number of valves. To ensure optimal functioning, the original concept included temporarily wiring the devices to a few thermostats. The lighting devices also had to be physically connected to switches. In total, over 52 km of control cables would have been required.

As the control solution supplier, Regulvar designed two proposals, one wired and one **wireless**. Given the customer's keen interest in new technologies, the second option was chosen for its significant savings with regard to wiring and the

environment, as well as the flexibility it provided related to the future office layout.

Once the customer needs are known, the HVAC system control components (terminal controllers and thermostats) and wireless lighting components (switches and relays) can easily be moved or added, and the programming of each peripheral device can be modified with a single action. This is designed to simplify the work of the people responsible, reduce the amount of time required to carry it out, and cut costs.

Choosing wireless control technology proves to be a wise decision for the owners, and it offers interesting possibilities to all open space buildings.

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Source

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500 Grande-Allée





In 2012, Exfo. a company specializing in telecom test and service assurance, had a building built to be used for administrative, research and testing activities and to provide rental space to tenants. Located in the Technoparc in Montreal's Saint-Laurent borough, the building has five floors, including a basement level.

Regulvar was chosen to design and implement the building automation system that manages all the devices required to maintain comfort levels in the building: the hot-water heating system, the chilled-water air conditioning system, and the ventilation system.

Therefore, from the main control room or one of the two touch screens located in the mechanical equipment rooms, operators can monitor and adjust the two electric boilers, the gas boiler, the two cooling units, the heat pumps, the fans and several other devices.

Regulvar chose wireless technologies to provide room control. Each floor is equipped with Regulvar's self-powered wireless thermostats and CAN2GO wireless to BACnet gateways for wireless communication. These devices communicate with a master controller. which is located in the mechanical equipment room on each floor and controls all the mechanical aspects, including over 200 dual duct variable air volume units.

Finally, the BACnet integration made it possible to link devices equipped with controllers provided by third parties to the building automation system. For instance, the radiant floor heating in the cafeteria operates in connection with the heating and air conditioning systems because Regulvar added two temperature sensors in the concrete slab and one in the room.

In conclusion, the solution implemented by Regulvar was adapted to the customer's specific needs and requirements, providing both total equipment control and simple monitoring features as well as energy management tools.

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Source

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Did vou know?

A new head office for Regulvar

Since 1974, the year Regulvar was founded by Yves Harel, Eng., the Company has enjoyed constant growth and now has close to 500 employees working at 12 branches. To better meet the Company's needs, the head office's activities will be transferred to a building purchased in 2010 and located on Industriel Blvd. in Laval. Major renovations are under way to integrate innovative systems, including geothermal energy systems, storage heaters, a solar wall, radiant floor heating, air conditioning and heating via climate beams, a wireless room control system, lighting control, motorized blinds, and energy dashboards.

The inauguration is planned for 2014, just in time to celebrate Regulvar's 40th anniversary.

We'll be there!

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