



## CASE STUDY

A High-rise residential property in Chatham, Ontario has been equipped with Alert Labs Flowie and Floodie devices. The Flowie remotely monitors the building water usage and Alert Labs algorithms provide alerts of unusual water consumption patterns that could indicate a leak or excessive waste. PROSHIELD was informed that in the past, the isolated water service room, hot water heating system had failed, allowing the water main pipes and pumps to freeze. The water supply to the building was lost and all the main water pipes had to be replaced; a very costly repair that took much time to complete. This history indicated that an additional level of protection for the water service room was warranted. To accomplish this, the temperature monitoring function of the Flowie device at this property was enhanced with a Floodie device to monitor the water room temperatures in two locations; at the height of the water meter and 4 cm above the floor. To protect the water service pipes and

equipment, temperature alerts are generated if the room temperature approached the freezing point, in either location being monitored.

Through the month of November, although the outdoor temperature dropped below freezing overnight, the temperature of the water service room remained safely at not less than 7°C. On the night of November 30 and through the early part of December each time the outdoor temperature drop below 0°C the water service room temperature would fall below 5°C and an Alert would be generated.

PROSHIELD alerted appropriate management staff regarding the freeze potential, as the room temperature at times dropped below 2°C. An investigation was conducted and a defective heater fan was discovered and repaired on December 17. The attached temperature trend log clearly shows the improved temperature control.

**Temperature Alarms Begin December 1 as Room temp. (Blue) drops with Outdoor temp. (Green)  
ALERTS generated when Water Service Room temperature drops below 5°C (Yellow).**



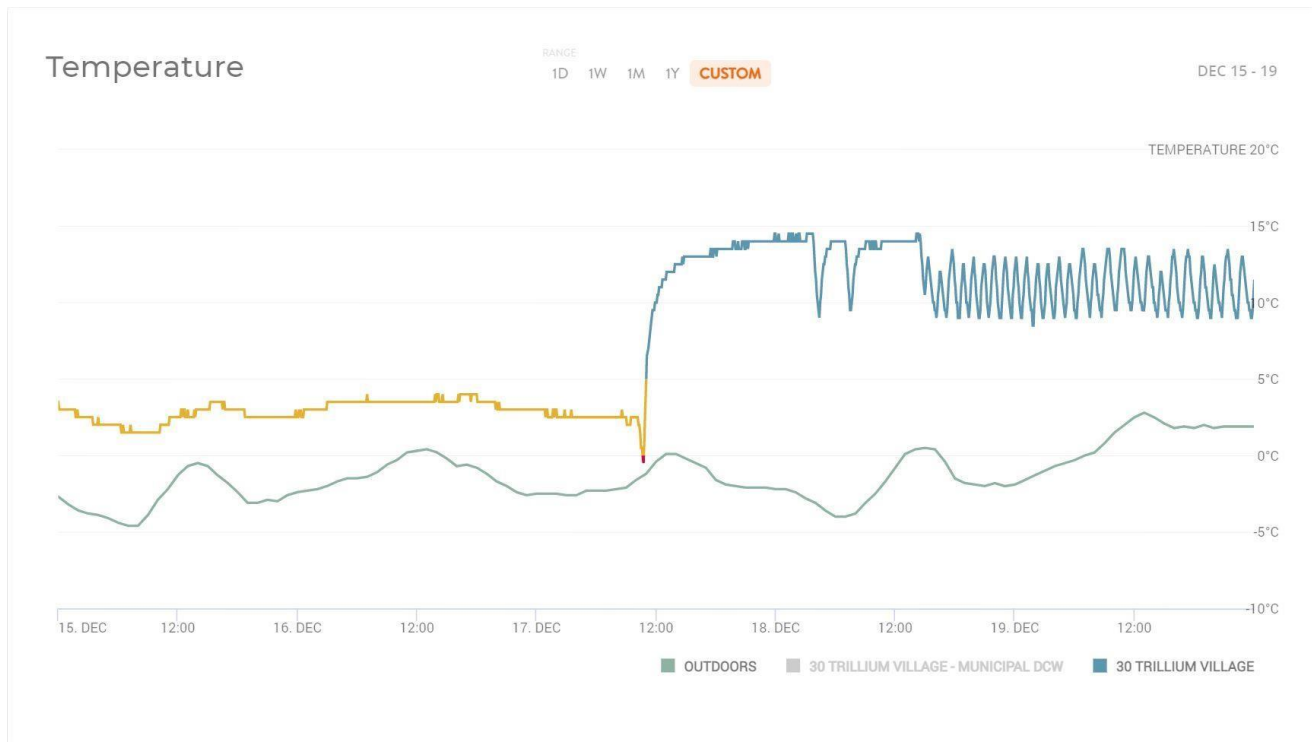
*Conserve*

*Protect*

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**Water Service Room Heater repaired at noon on Dec.17 and temperature is maintained between 8° - 12°C.**



**SUMMARY:**

The Water Service Room temperature was dangerously near 0°C and was decreasing with the outdoor temperature. Had the outdoor temperature dropped significantly, extensive damage may have resulted.

We are pleased to report that the Water Service Room temperature is now being maintained normally and that the problem was resolved and property damage averted.

PROSHIELD is happy to have contributed to protecting the water pipes from freezing.