

CATHEDRAL HILL - FAQs



WHAT IS A 'VRF' AND WHY IS IT A SUPERIOR MECHANICAL SYSTEM?

A Variable Refrigerant Flow (VRF) refers to centrally located heat pumps connected to your suite with thin pipes filled with refrigerant. Depending on the need to move heat in or out of your suite, more or less refrigerant will be pumped through the pipes. This mechanical system offers four primary advantages over typical systems found in Ottawa condominiums:

- **Energy Efficiency** – Because the heat pumps are central, it is possible to move heat from one side of the building to another, without making more heat. Depending on the outdoor temperature and sun exposure, the VRF system will simply move hot refrigerant from the one side of the building to the other, as needed. This system transfers the sun's energy efficiently throughout the building without every having to use fuel to make more heat.
- **Silent Operation** – The system does not have heat pumps within the suites, which are typical in most Ottawa condominiums. These pumps, or compressors, make noise and introduce vibrations into the interior environment of the suite. The VRF system has heat pumps in the mechanical rooms, where access does not inconvenience owners, and the noise and vibrations are contained.
- **Space Saving** – The module(s) in suites are compact units consisting of a fan unit, controls, and some valves. These are typically 12" deep, and can fit in a drop ceiling over a closet or bathroom without taking valuable floor space. Most condominiums in Ottawa rely on a stacked heat pump system that requires its own closet. VRF systems allow more of your space for your own use, rather than filling it with mechanical systems.
- **Temperature Control** – The VRF system is designed with excess capacity. Many competing systems in Ottawa condominiums have difficulty maintaining comfortable indoor air temperature during extreme weather events and/or with significant sun loads entering the suite. The VRF system does not have this issue and will achieve the desired temperature under any conditions.

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WHAT MAKES THE CATHEDRAL HILL BUILDING ENVELOPE BETTER THAN ANY OTHER CONDO?

The “Building Envelope” refers to the wall and window assemblies that separate the weather outside from the comfortable interiors inside. It is specifically the material you see on the inside, outside, and also what is within the walls. The envelope at Cathedral Hill has been carefully designed, modeled, and meticulously detailed to provide exceptional performance in Ottawa’s demanding climate:



- The windows are double paned with a thermally broken frame and glass stop to limit the transfer of heat in cold temperatures.
- The window coatings help control heat gain from the sun in warm temperatures and also keep the heat within the suites in cooler seasons.
- The wall sections are doubly insulated on the inside and on the outside, followed by more exterior insulation, and finally the cladding material. This approach allows us to achieve an overall thermal resistance of approximately R22, far exceeding code and increasing thermal comfort near the exterior of the building while reducing energy consumption.

WHAT OPTIONS DO I HAVE AT CATHEDRAL HILL TO GET RID OF MY CAR?

Cathedral Hill is ideally located to live a car-free lifestyle, with amenities and great parks within a short walking distance. For longer trips or in poor weather, there are still a variety of options for our homeowners, including:

- **Biking** – storage on site will allow you to easily access your bike for recreation or destinations beyond walking distance, and Windmill is in discussion with Bixie bikes to encourage a bike station to be installed on or near the site.
- **Public Transit** – Frequent service in the corridor is only a few blocks from your door and will connect you to everything in Ottawa and Gatineau region. By 2017, the LRT will be complete and running beneath Queen Street. A station is expected to be installed at Bay St, or at furthest Lyon St and will further improve car-free movement around the City.
- **Vrtucar** – will be located on or very near the premises. Vrtucar is a car sharing service whereby members can book any of the 50+ vehicles parked around the city for as little as 30 minutes or for multi-day trips.