



MILLENNIUM TOWER

HEATING, VENTILATION, & AIR CONDITIONING FACTSHEET

Address: 440 – 2nd Avenue SW, Calgary, AB T2P 5E9

General Description:

Built-in 2000, Millennium Tower has 25 floors and is approximately 440,000 square feet in size. The parkade offers underground heated parking with 271 stalls.

Mechanical Engineer: Smith Andersen Engineering Ltd.

General:

- The building HVAC is controlled by Building Automated System (B.A.S.).
- Heat is supplied by (3) 1176,114 Kw Bryan boilers located in the penthouse mechanical room. All boilers are gas fired and hot water types. These control perimeter radiation heating on all floor levels.
- Cooling is provided by 2 x 500-ton centrifugal chillers located on Level 26 in the mechanical space. Pneumatically controlled Variable Air Volume (VAV) boxes located in the ceiling space at floor level (approximately 30-50 per floor).

Design Criteria:

The building's HVAC systems are designed to meet or exceed ASHRAE Building Code requirements. MAU is by an outdoor air unit that filters and conditions fresh air to each floor compartmental fan unit which filters and conditions a final time, to be distributed to the floor VAV systems located in the ceiling plenum.

Filters:

MERV 13 filters in the AHUs and tenant floor Compartmental Units; filter changes are based on pressure drop over the filter bank on a frequency of 1-2 years depending on outdoor air quality.

Heat:

Heat is supplied by (3) 1176,114 Kw Bryan boilers located in the penthouse mechanical room. All boilers are gas fired and hot water types. These control perimeter radiation heating on all floor levels.

Air Conditioning:

Cooling is provided by 2 x 500-ton centrifugal chillers located on Level 26 in the mechanical space. Pneumatically controlled Variable Air Volume (VAV) boxes located in the ceiling space at floor level (approximately 30-50 per floor).

Air Exchange:

Industry standards are met or exceeded. Air changes at a minimum of 1.25 per hour per floor. Fresh air – minimum of 0.177 cfm/sq ft for the total floor area. Each typical 20,000 square foot floor receives 3,500 CFM of 100% outdoor air.



Standard Hours of HVAC Operation:

Monday to Friday 6 am to 6 pm, excluding statutory holidays.

COVID-19 and HVAC:

The risk of transmission through indoor air system is greatly reduced by increased air exchanges in the ventilation system combined with high rated air filtration with MERV 13 filters.