



Project: Canyon Climbing  
La Prairie, QC



Canyon Climbing is a climbing center on artificial structure. This is the highest climbing gym in Quebec. This is 2000 m<sup>2</sup> of climbing walls for climbers of all skill levels. The walls vary from 12 to 19 m in height. The facilities also include: Bistro, rooms for parties and events, Zumba rooms, Yoga and training room, mini spa with dry saunas and steam room, relaxation rooms and massage therapy.

Geo-Energy has been mandated to produce all the mechanical and electrical plans of the building.

Thus, Geo-Energy produced all the plans and specifications of the building and performed the following tasks:

- Building load calculations;
- Dimensioning (heating, air conditioning and ventilation systems);
- Design of hot water and domestic cold water networks;
- Design of sanitary and storm drainage networks;
- Review of shop drawings, site visits and activity monitoring;

One of the peculiarities of this project is that the main climbing room has an unconventional ceiling height. It was therefore necessary to provide a system that promotes sufficient air mixing so that all the spaces are sufficiently ventilated, heated and air-conditioned while limiting the stratification of the air. On the other hand, the zumba halls and the office rooms, as well as the basement rooms are served by terminal units connected to a VRF Heat-Pump unit. This equipment can cool some areas while heating others and recovering energy from one space to another. The great diversity of use of building spaces allows such use.

Geo-energy throughout the project worked in close collaboration with the various project stakeholders namely, architects, other consultants, the client as well as contractors in ventilation and plumbing.



**Geo-Energie** inc.  
*Ingénierie, design*