



Cedar Hill Community Centre

The new wing of Cedar Hill Community Centre is to be built in accord with the Centre's goals of promoting health and wellbeing. High indoor air and environmental quality is a priority and will be achieved using low emitting materials, natural ventilation and generous views of the outdoor surroundings. With the North facing glazing and operable windows the new fitness area, pottery and art studios will forgo the usual requirement of having air conditioning. The use of natural light and reduction of mechanical equipment will result in an energy efficient facility, lowering both initial and operating costs, and the introduction of bioswales and permeable paver parking area will enhance the landscaping of this community centre, already located in an idyllic natural setting.



H₂O management

A comprehensive water-management strategy is expected to reap substantial gains in conservation at Cedar Hill. Water-efficient landscaping uses plants indigenous to the region to eliminate the need to irrigate planted areas, and design elements and special fixtures in washrooms will decrease indoor water use by between 20-30% (over present or standard fixtures?) when completed. Further, stormwater runoff will be channeled into a bioswale, which, like permeable paving, acts to filter runoff and lets water re-enter the local ecosystem naturally.

Transportation

Promoting non-automotive transportation alternatives fit perfectly into Cedar Hill's mandate to encourage health and well-being in the community, with a number of best practices being included in the design. The Community Centre is fully accessible by non-automotive means: it sits on the edge a 3.6km urban walking/jogging trail, is within a few hundred meters of two different transit lines, and will include locking areas and showers for cyclists. If users choose to drive, there are permeable-paver parking stalls to reduce water runoff to local sewer systems, which decreases pollution to receiving water bodies and replenishes local aquifers. The design also provides a recharging station for electric vehicles, which helps build infrastructure for non-petroleum private autos which decreases smog & pollutants in the local airshed.



Bowker Creek at Cedar Hill



Indoors

Increasing the comfort and quality of the indoor environment is just as important for human ecology as outdoor spaces— especially when your space includes a major regional fitness facility, like Cedar Hill. Designers have made full use of the region’s temperate climate and the client’s goal of connectivity between indoor and outdoor spaces by using opening, glazed overhead doors on the outside walls of the fitness facility, maximizing natural ventilation flows when it’s needed in the summer months. This, in part, enables daylight penetration to indoor spaces and maximal views for patrons using the facility. A carbon dioxide monitoring system and low-emitting adhesives, paint, carpets, and wood products will both monitor and reduce the toxins usually present in new buildings.

Energy + Lighting

Reducing overall energy use has dual benefits: a decrease in facility operating costs, and a reduction in pollution from decreased demand on the energy grid. The Cedar Hill Community Centre will achieve impressive benchmarks in this area, with a goal of reducing overall energy usage by 30% in the new facility – aided in part by providing alternatives to air conditioning in new areas. Intelligent design has positioned buildings to make use of naturally shaded areas, reducing heat gain, yet leverages all available natural light through maximum glazing, and adds daylight sensors to control & reduce the need for artificial illumination.

