

Global Welfare_We care

University of Toronto

Username: Steven1124

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[Day 13 Urban Ecology]

Do you have sustainable buildings in your neighborhood?

I would like to share two buildings, one is near my university, the other is 30min driveway from my house.

At first, that will be the **Green Roof Innovation Testing (GRIT) Laboratory** in University of Toronto, with a large and flat area for them to use the plants to avoid the sunlight and high temperature.

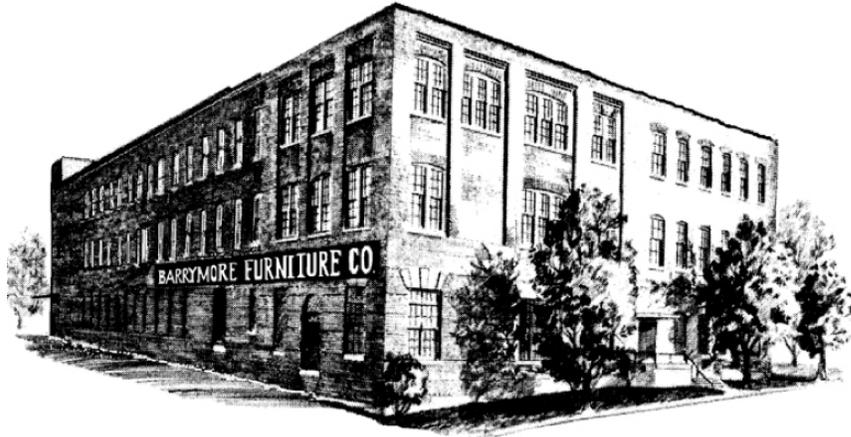


The green roof research areas are located to take advantage of a range of conditions: the large flat area atop the mechanical penthouse, sloped roofs of the heritage building, and other incidental flat roof areas. The rooftop research is augmented with ground level landscape installations and cisterns. A current research priority of the GRIT Lab is Low Impact Design, an approach to manage stormwater runoff through landscape design interventions.

(Uoft,2022)

On the other hand, that will be **Barrymore Building**.

This structure was known as the Barrymore Furniture factory. Situated in Liberty Village, the property has since been turned into a variety of retail and commercial spaces.



It is home to the Knoll Showroom, which has got LEED Platinum certification. Designed with post-consumer materials, Barrymore features extensive use of natural light. (MCW,2022)

What sustainable solutions do you see in your city, state or country? Tell us about one innovative solution you discovered.

To be honest, this is my favorite spot in Taipei when I visited there in my early age. The library was built in a Beitou Park. It is famous for its view when you sit in the room and you still can see an amazing sunlight and mountains, and trees embrace the building. Equipped with solar panel power generation, can generate **16 kilowatts** of power, and adopt a large number of balcony deep shading and vertical wood grid, reduce heat radiation into the room, reduce energy consumption to achieve energy saving effect.

The green roof and slope design can contain water and naturally drain into the rainwater recovery tank, and then use the recycled water to irrigate the toilet for planting and flushing, so as to achieve greening and reduce water waste.

The building is made of wood and steel, which can be recycled to reduce the environmental damage caused by waste. In terms of indoor health and environmental indicators, in addition to termite control, ecological coatings are used for wood and building materials and unnecessary decoration works are exempted to reduce pollution and the release of toxic substances, so as to avoid affecting human health



What problem does it address and what are the benefits to the community?

It might lower the carbon emission when you don't have to consume extra light. You can use the sunlight in the daytime, and self-supply the power which generate in the daytime. On the other hand, a smart toilet would be able to save the water in a higher efficiency.

